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MATERIAL SAFETY DATA SHEET Page 1 of

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Duro(R) Super Glue SUP-1 Product Name:

01801 SUP-1 Item No.: Part No.:

Product Type: Cyanoacrylate Ester Adhesive

COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients CAS No. %

Ethyl cyanoacrylate Poly (methyl methacrylate) HYDROQUINONE 7085-85-0 9011-14-7 123-31-9 95-100 3-5 0.1-0.5

Ingredients which have exposure limits

OTHER ACGIH Exposure Limits (TWA)

Ingredients

0.2 ppm TWA 2 mg/m3 TWA Ethul cyanoacrylate HYDROQUINONE None None 2 mg/m3 TWA 4 mg/m3 STEL 2 mg/m3 TWA

Exposure Limits (STEL) QSHA

ACGIH (TLV) (PEL) Ingredients

HAZARDS IDENTIFICATION

Toxicity:

Skin contact may cause burns. Bonds skin rapidly and strongly. Skin and eye irritant. Estimated oral LDSO more than SOOOmg/kg. Estimated dermal LD SO more than 2000 mg/kg.

None known

Primary Routes of Entry: Signs and Symptoms of Exposure:

Vapor is irritating to eyes and mucous membranes above TLV. Exposure to vapors above the established limits may cause symptoms of

non-allergic asthma.

Existing Conditions Aggravated by Exposure: None known

Carcinogen NTP IARC OSHA Literature Referenced Target Organ and Other Health Effects Ingredients

Ethyl cyanoacrylate Poly (methyl methacrylate) HYDROQUINONE NO NO ALG IRR RES IRR NO NZA NO NO

BLO BNM CNS EYE IMM IRR LIV MUT NO

Abbreviations

N/A Not Applicable BLO Blood CNS Central nervous system IMM Immune system LIV Liver RES Respiratory THY Thyroid ALG Allergen BNM Bone Marrow EYE Eyes IRR Irritant

MUT Mutagen SKI Skin

4. FIRST AID MEASURES

Ingestion is not likely. See supplemental page for Ingestion:

Inhalation:

emergency procedures.
Remove to fresh air. If symptoms persist,
obtain medical attention.
Soak in warm water. See supplemental page for
emergency procedures.
Flush with water. See supplemental page for Skin Contact: Eye Contact:

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Product Name:

Duro(R) Super Glue SUP-1

Item No.:

4. FIRST AID MEASURES

(continued)

emergency procedures.

S. FIRE FIGHTING MEASURES

Flash Point: 150-200<sub>=</sub>F Method: Tag Closed Cup

Recommended

Carbon dioxide, Foam, Dry Chemical

Extinguishing Agents: Special Firefighting Procedures:

Not available

Hazardous Products formed
by Fire or Thermal Decomp Irritating organic fragments
Unusual Fire or
Explosion Hazards:
None

Explosive Limits:

(% by volume in air)Lower (% by volume in air)Upper Not Applicable Not Applicable

<u>ACCIDENTAL RELEASE MEASURES</u>

Steps to be taken in case

of spill or leak: Flood with water to polymerize. Soak up with an

inert absorbent.

HANDLING AND STORAGE

Safe Storage: ∫Conțạct Loctite Customer

Store below 75 deg. F. Service 1–800–243–4874 for shelf life information) Avoid contact with skin and eyes. Avoid breathing Handling:

vapors.

EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Skin:

Safety glasses or goggles mandatory. Nitrile or polyethylene gloves and aprons. Do not use cotton. See supplemental page for additional information. Positive down-draft exhaust ventilation should be provided to maintain vapor concentration below Ventilation:

NIOSH/MSHA approved respirator with organic vapor Respiratory

cartridge if ventilation is inadequate.

See Section 2 for Exposure Limits.

9. <u>PHYSICAL AND CHEMICAL PROPERTIES</u>

Clear liquid Sharp, irritating More than 300\_F Not Applicable Appearance: Odor: Boiling Point:

gH: Solubility in Water: Specific Gravity Volatile Organic Compound (EPA Method 24) Polymerized 1.05 at 75<sub>=</sub>F

94.0%; 987 g/l Less than 20 g/l (California SCAQMD method 316B) Less than 0.2mm at 75=F

Vapor Pressure: Vapor Density: Evaporation Rate (Ether = 1) Approximately 3

Not available

10. STABILITY AND REACTIVITY

Stability: Hazardous Polymerization: Incompatibility: Stable

Will not occur

Polymerized by contact with water, alcohols, amines, alkalies. Not available

Conditions to Avoid: Hazardous Decomposition Products (non-thermal):

None

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Duro(R) Super Glue SUP-1 01801 Product Name:

Item No.:

11. TOXICOLOGICAL INFORMATION

See Section 3.

12. ECOLOGICAL INFORMATION

No data available

DISPOSAL CONSIDERATIONS

Recommended methods of

disposal:

Polymerize as aboye. Incinerate following EPA and local regulations.

EPA Hazardous Waste Number

NH - Not a RCRA Hazardous Waste Material

14. TRANSPORTATION INFORMATION

DOT (49 CFR 172)

Domestic Ground Transport Proper Shipping Name:

Unrestricted (Not more than 450 liters); Combustible liquids, n.o.s. (Cyanoacrylate ester) (More than 450 liters)

Hazard Class or

Division:

Unrestricted (Not more than 450 liters) Combustible liquid (More than 450 liters) None (Not more than 450 liters); NA 1993 (More than 450 liters)

Identification Number:

Marine Pollutant:

None

IATA Proper Shipping Name:

Class or Division:

UN or ID Number:

Unrestricted (Not more than one pint); Aviation regulated liquid, n.o.s., (Cyanoacrylate Ester) (More than one pint) Unrestricted (Not more than one pint); Class 9 (More than one pint) None (Not more than one pint) UN 3334 (More than one pint)

15. REGULATORY INFORMATION

CA Proposition 65:

No California Proposition 65 chemicals are known

to be present.

16. OTHER INFORMATION

Estimated NFPA(R) Code: Health Hazard: Fire Hazard: 221

Reactivity Hazard: Specific Hazard:

Does not apply

Estimated HMIS(R) Code: Health Hazard: Flammability Hazard: Reactivity Hazards: Personal Protection:

See Section 8.

NFPA is a registered HMIS is a registered

trademark of the National Fire Protection Assn. trademark of the National Paint and Coatings Assn.

Prepared Bu: Stephen Repetto

Title:

Research Chemist, Environmental Health & Safety Henkel Loctite Corporation, Rocky Hill CT 06067 (860) 571-5100 January 26, 1999 Revision: 0029

Company: (24hr.) Phone: Revision Date:

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MATERIAL SAFETY DATA SHEET

Product Name: Item No.:

Duro(R) Super Glue SUP-1 01801

Supplement

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INFORMATION FOR FIRST AID AND CASUALTY ON TREATMENT FOR ADHESION OF HUMAN SKIN TO ITSELF IF CAUSED BY CYANDACRYLATE ADHESIVES

Cyanoacrylate adhesive is a very fast setting and strong adhesive. It bonds human tissue including skin in seconds. Experience has shown that accidents due to cyanoacrylates are handled best by passive, nonsurgical first aid. Treatment of specific types of accidents are given below.

SKIN CONTACT

Remove excess adhesive. Soak in warm, soapy water. The adhesive will come loose from the skin in several hours. Cured adhesive does not present a health hazard even when bonded to the skin.

Avoid contact with clothes, fabrics, rags, or tissue. Contact with these materials may cause polymerization. The polymerization of large amounts of adhesive will generate heat causing smoke, skin burns, and strong, irritating vapors. Wear nitrile or polyethylene gloves and apron when handling large amounts of adhesive.

SKIN ADHESION

First immerse the bonded surfaces in warm, soapy water. Peel or roll the surfaces apart with the aid of a blunt edge, e.g. a spatula or a teaspoon handle; then remove adhesive from the skin with soap and water. Do not try to pull surfaces apart with a direct opposing action.

EYELID TO EYELID OR EYEBALL ADHESION
In the event that eyelids are stuck together or bonded to the eyeball, wash thoroughly with warm water and apply a gauze patch. The eye will open without further action, typically in 1-4 days. There will be no residual damage. Do not try to open the eyes by manipulation.

ADHESIVE ON THE EYEBALL Cyanoacrylate introduced into the eyes will attach itself to the eye protein and will disassociate from it over intermittent periods, generally covering several hours. This will cause periods of weeping until clearance is achieved. During the period of contamination, double vision may be experienced together with a lachrymatory effect, and it is important to understand the cause and realize that disassociation will normally occur within a matter of hours, even with gross contamination.

If lips are accidentally stuck together, apply lots of warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull the lips with direct opposing action.

It is almost impossible to swallow cyanoacrylate. The adhesive solidifies and adheres in the mouth. Saliva will lift the adhesive in one half to two days. In case a lump forms in the mouth, position the patient to prevent ingestion of the lump when it detaches.

Cyanoacrylates give off heat on solidification. In rare cases a large drop will increase in temperature enough to cause a burn. Burns should be treated normally after the lump of cyanoacrylate is released from the tissue as described above.

It should never be necessary to use such a drastic method to separate accidentally bonded skin.